Canada: Mine Safety Equipment Industry

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Summary

As one of the largest mining nations in the world, Canada is a world leader in safe mining practices as its mining industry safety standards continue to evolve. Safety regulations in mines in Canada are governed by both provincial and federal agencies. As a result of this high standard for safety, the Canadian markets have a relatively high demand for safety equipment used in the mining industry. In 2008, the Canadian mine safety equipment market was valued at just over $3 billion with 62% ($1.8 billion) exported from the U.S. Given both the opportunities and challenges the current Canadian mining industry is facing, the market for U.S. mine safety products remains relatively strong. Best prospects include safety headgear, protective suits and accessories, pressure monitoring devices, flashlights/electric miner lamps and lighting.

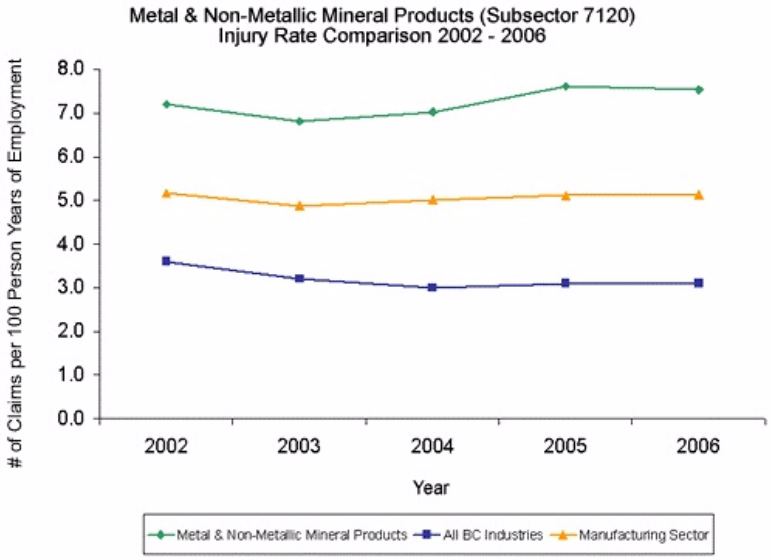
Market Demand

Some mining analysts predict that the mining industry will remain relatively strong in the next year because of the economic growth in China and other countries in Asia. In addition, commodity prices are expected rebound in 2010 through 2012 with many mining analysts anticipating the mining boom to resume in 2010. For example, Grande Cache Coal Corporation anticipates $67 million expenditure in fiscal 2010 for mine and mining equipment. This includes approximately $20 million related to the development of the No. 8 surface mine and the No. 12B2 underground mine in Alberta. Cameco Corporation, one of the largest mine corporations in Canada, expects to make capital expenditures totaling $57 million on two developing mine projects - $48 million on Cigar Lake (Saskatchewan) and $9 million on Inkai (Kazakhstan). In addition, Taseko Mines Ltd. recently proposed a Prosperity Mine (British Columbia) expansion that is expected to produce 970 million tons of copper and 4.7 million ounces of gold, and add $4.5 billion to B.C.'s GDP over the next two decades. Yamana Gold Inc. also expects 2009 and 2010 production to increase by approximately 40 per cent with capital expenditures of $350 million and $400 million respectively.

As such, the demand for mine safety equipment is expected to grow slightly in 2010. Heavily replying on U.S. equipment and supply imports, the Canadian mining industry provides U.S. manufacturers with strong opportunities for mine safety equipment. In the past ten years, U.S. manufacturers remain as the largest mine safety equipment supplier in Canada. The recent rise of the Canadian currency in relation to the American dollar may also contribute a moderate increase in American firm's share of the import market of mine safety equipment.

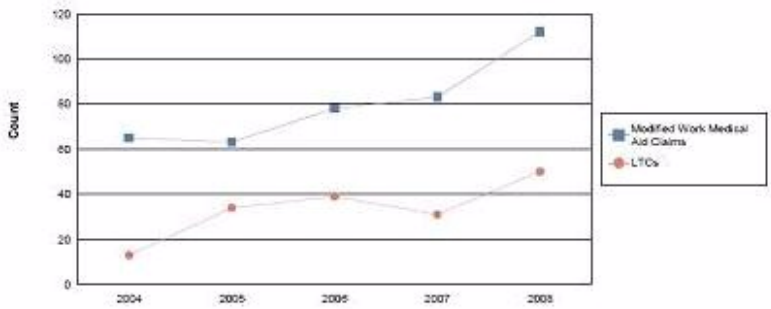
Among the different types of mines across Canada, coal mines have enjoyed the largest profits for the past few years and are mostly likely to create new markets for safety equipment. Roughly 90% of Canada's coal is produced in the mines of three western provinces - British Columbia, Alberta and Saskatchewan. These three provinces present the greatest markets for mining safety equipment because, according to the National Injuries Statistics Program of Work Compensation Board in Canada, they have the highest injuries and lost workday claims.

In British Columbia for instance, according to WorkSafeBC, the injury rate for the metal and non-metal minerals production has historically been significantly higher than all B.C. industries combined. In 2006 there were 7.5 claims per 100 person years of employment, this was similar in 2005, and an increase of seven percent over 2004. This is in comparison to B.C. manufacturing industry, which posted 5.1 claims per 100 person years of employment for the past 3 previous years since 2006. All BC Industry posted 3.1 claims respectively. View the following table to compare claim results.



The following three graphs from the Alberta Workers Compensation show the number of injury claims, frequency rates, and compensation costs have increased from 2004 to 2008. The number of Disabling Claims has risen in 2008 by over 20% from 2007 and 23% from 2006. Injury frequency rates have also risen in 2008 to 2.11 claims per 100 person years of employment from 1.32 claims in 2007. In 2008, average costs per lost time claims (C$16,316) have also risen from 2007 by over 29%.

Alberta: Open Pit Mining: 2004-2008; Disabling Claim Components (source:WCB-Alberta)



Disabling Claims include Lost Time Claims or Medical Aid Claims with Modified Work

Industry Synopsis

Workers' Compensation Board Alberta

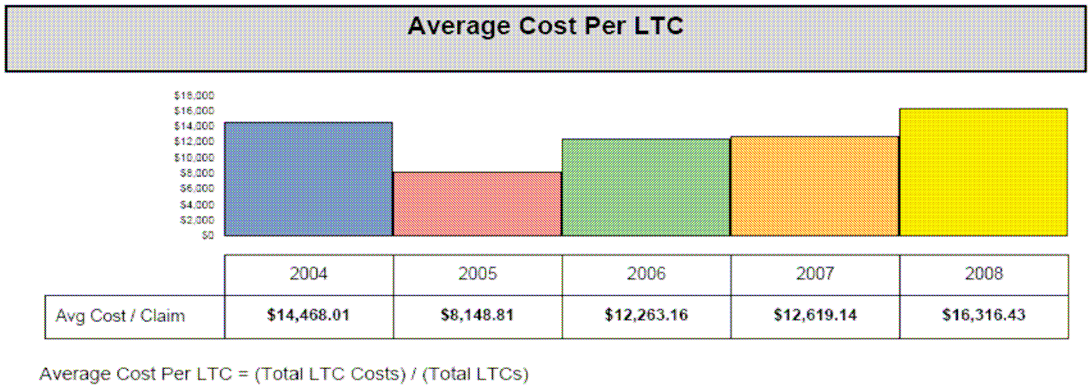
Industry: 06110 MINING, OPEN PIT

Claim Costs – for Years: 2004 to 2008

Frequency Rates
(Lost Time Claims per 100 workers)

	2004	2005	2006	2007	2008
Frequency Rate	**0.92**	**1.66**	**1.86**	**1.32**	**2.11**

Frequency Rate = (Total Lost Time Claims * 100) / (Person Years)
Person Years = (Total Insurable Earnings) / (Avg Hourly Wage * 2000 Hours)



	2004	2005	2006	2007	2008
Avg Cost / Claim	$14,468.01	$8,148.81	$12,263.16	$12,619.14	$16,316.43

Average Cost Per LTC = (Total LTC Costs) / (Total LTCs)

According to the Canadian Institute of Mining, mining ranks as one of the most dangerous industries in Canada and in 2007, the number of annual fatalities have increased 10.6% across Canada. British Columbia, Alberta, and Nova Scotia have revised their mine safety codes to upgrade the safety requirements in the past year.

Market Data

The mine safety equipment products covered in this report are as follows (with the respective Harmonized System Codes):

HS Code	*Description*
3926.20.1010	Plastic protective apparel
4015.19.1000	Protective rubber glove
6402.91.1000	Metal-toed rubber boot
6506.10.1090	Safety headgear
8308.90.1000	Safety belts/buckle
8412.39.0000	Air filtering equipment
8513.01.0000	Safety lamp
8525.60.0000	Radio/Transceiver
8541.40.0010	Lighting
9019.20.0000	Respiration apparatus
9020.00.0090	Protective gas masks/breathing apparatus
9026.20.0000	Pressure monitoring devices
9026.80.0000	Gas/Heat meters
9028.10.0000	Automatic regulating and controlling instruments

The Canadian mining industry has experienced strong growth in the past five years up to the middle of 2008. The mid-2008 financial crisis has slowed the growth in sales and investment in the Canadian mining industry. The final tally in 2008 showed a 7% decrease in the number of imports to Canadian of mine safety equipment from 2007.

In 2008, the Canadian mine safety equipment market was valued at just over $3 billion with US firms dominating the market by supplying over $1.8 billion worth of mine safety equipment. American firms currently capture 62% of the import share, up from 58% in 2007. In 2009, U.S. manufacturers are expected to continue this supply of over 60% of the safety equipment to Canada. The North American Free Trade Agreement, which eliminates all tariffs on US made mining equipment imported into Canada, has helped U.S. manufacturers increase their dominant share of the import market. The Canadian domestic production of safety equipment comprises only 0.70% of the total market demand (See Table I).

Table I
Market Size for Mine Safety Equipment
(US$ Millions)

	2006	2007	2008
Total Import Market	2414.2	3244.9	3001.1
Local Production	14.8	21.8	19.7
Local Market Share	0.6%	0.7%	0.7%
Imports from US	1722.7	1886.4	1854.7
US Market Share	73.4%	58.3%	61.8%
Exchange Rate	0.882	0.930	0.938
Inflation Rate	2.20	1.70	0.35

Source: Global Trade Atlas, Bank of Canada

The Canadian market is very receptive to U.S. products because of their high quality and cost-competitiveness. The next closest competitors are firms from Mexico, China, South Africa, and Japan (See Table II). Companies from the United States enjoy a number of advantages in the Canadian market as compared to these competitors. These advantages include duty-free equipment access under the North American Free Trade Agreement (NAFTA) and close proximity to Canadian mine sites, both of which make the product more cost effective. Canadian mining companies prefer to purchase US equipment due to fast delivery and service.

Table II
Origin of Imports - Market Share (%)

Market Share	2006	2007	2008
U.S.	71	58	62
Mexico	9	12	12
China	3	5	6
Japan	4	3	3
South Africa	0	8	3
Others	13	14	14

Source: Global Trade Atlas, Bank of Canada

The following table shows the U.S. dollar value of the top U.S. mining safety products imported into Canada from 2006-2008.

U.S. Imports to Canada (US dollars)					
Rank	HS Code	Description	2006	2007	2008
		All Equipment	1,722,692,759	1,886,390,977	1,854,687,154
1	903289	Auto Regulating Ins & Appr Ex Throstat,Mnstat, Etc	911,592,844	786,078,818	672,464,878
2	842139	Filter/Purify Machine & Apparatus For Gases Nesoi	512,903,848	588,682,057	638,943,837
3	852560	Transmission Apparatus Incorporating Reception App	134,526,221	157,309,511	180,294,305
4	902620	Inst & Apprts, Measuring/Checking Pressure	117,319,288	157,700,338	141,786,318
5	902000	Breathing app & gas masks,excl protective, w/o mec	55,361,785	61,496,188	63,525,216

Source: Global Trade Atlas

Best Prospects

The following items have been identified as having the most increases in number of imports into Canada from 2007-2008.

HS Code	*Description*	*Import % increase from 2007*
6506.10.1090	Safety headgear	189
3926.20.0001	Protective suits and accessories	83
9026.80.0000	Pressure monitoring device	22
8513.90.1000	Flashlights/electric miners lamps	22
8541.40.0010	Lighting	20

Source: Global Trade Atlas

In addition to the list above, non-durable personal safety items such as protective gloves, safety glasses, and protective boots are in high demand because of the constant need for replenishment. It is typical that many large mining corporations in Canada purchase non-durable personal safety items (gloves, headgear, boots) on a weekly basis and durable safety items (lamps, belts, monitoring devices) on a monthly basis. Smaller mining companies purchase safety items on an annual basis, typically during the mining season from June through October.

Key Suppliers

The following is a list of key suppliers to the mining industry whose specialties include mining safety equipment and products.

Supplier	*Relevant Products & Services*
Mine Radio Systems Inc. (MRS) www.mineradio.com	Two-way voice and video communications, automated equipment control
3M Global Mining www.3m.com	Respirators, breathing masks, protective suits
NL Technologies www.nltinc.com	Miners' cap lamps, lighting systems
Cattron-Theimeg Canada Ltd. www.cattron.com	Transceivers, radio remote products
Conspec Controls Ltd. www.conspec-controls.com	Transceivers, radio products, gas monitors, detectors
Deakin Equipment Ltd. www.deakin.com	Headgear, protective clothing, footwear, gloves, respirators, cap lamps
Mine Site Technologies Pty Limited (MST) www.minesite.com	Gas monitors, cap lamps, radio products

A complete list of mine safety equipment suppliers is available at http://www.infomine.com/suppliers/buyersguide/r5.n60.c5010.s5183/canada.safety.equipment.aspx

Prospective Buyers

Across Canada, approximately 38% of the mines are underground and 62% are open-pit. As a result of ventilation concerns, underground mines tend to have more demand for respiration equipment. On the other hand, open-pit mines mainly deal with heavy and large-scale machines, and therefore require more personal protective equipment. Aside from these difference, open pit and underground mines have very similar regulations and standards for safety equipment.

The chart below displays a list of the largest mining companies in Canada. These corporations are most likely to develop mines development and thus create new markets for safety equipment. The complete list of all types of mines and mine corporations in Canada can be found at: http://apps1.gdr.nrcan.gc.ca/mirage/full_result_e.php?id=226415

Company	*Headquarters*	*Product*	*Mines or Future Mines*
Agnico-Eagle Mines Ltd. www.agnico-eagle.com	Toronto, ON	Gold	4 Currently, 2 Developing
Barrick Gold Corp www.barrick.com	Toronto, ON	Gold, Copper	27 Currently, 10 Developing
Cameco Corp www.cameco.com	Saskatoon, SK	Uranium, Gold	6 Currently, 1 Developing
Potash Corp www.potashcorp.com	Saskatoon, SK	Potash	7 facilities
Goldcorp Inc. www.goldcorp.com	Vancouver, BC	Gold	11 Currently, 5 Developing
Sherritt International Group www.sherritt.com	Toronto, ON	Nickel, Cobalt, Coal	9 Currently, 2 Developing
Teck Resources Ltd. www.teck.com	Vancouver, BC	Zinc, Gold, Copper, Coal	18 Currently, 5 Developing

Market Entry

Every mining company has its own purchasing division that's responsible for purchasing mine safety equipment. Purchasing decisions are made by purchasing managers in the company headquarters or at the mine sites depending on the specific mine company policies. Direct sales to mining companies and sales through a local distributor are two conventional distribution channels that prevail in the Canadian mining safety equipment industry. Mining companies acquire large equipment directly from the manufacturer (sometimes through a bidding process) and smaller equipment from local suppliers.

Given the majority of the listed personal protective items are relatively less capital costly and smaller, most mine corporations in Canada such as Gold Corp Inc, Potash Corp, First Quantum Minerals Ltd, Western Canadian Coal, Imperials Metals, and Teck Resources acquire safety equipment from local distributors rather than from manufacturers. The mine purchasing managers expressed that the main reasons for choosing a distributor over a manufacturer for safety equipment are convenience and variety of choice. Since many mine corporations acquire personal safety items on a weekly or monthly basis depending on the products durability, it can be costly for manufacturers to directly ship supplies to the mine sites. Therefore, it is highly recommended that US manufacturers establish business partnerships with local distributors in the mine safety equipment market.

The most common distributors for large mine corporations in Canada are Acklands Grainger, Lorco Parts Ltd., Superior Safety, Schauenburg Industries and Deakin Equipment. These distributors would be a

valuable source of market opportunities, difficulties, and trends as they should be well aware of the purchasing process and product demand of the mine companies.

Market Issues & Obstacles

Canada presents no significant barriers to imports of mining safety equipment. However, because there is no universal mine safety equipment list in Canada, each province sets and revises its safety standards for mining. As a result, U.S. manufacturers may have to modify equipment to meet the specific requirements set by the provincial governments. For example, the Nova Scotia government strictly requires miners' cap lamps to provide a peak luminance of at least 1500 lux for eight consecutive hours at 1.2 m from the light source. More specifications for safety equipment can be found on the mining safety code/standard each provincial government publishes. In addition to the provincial regulations, mine safety equipment must also follow the federal safety and health regulations set by the Canada Labour Code.

A list of the several regulations can be found on http://www.rokdok.com/mining/links/lnk_home.html. Please visit the mining section of the provincial websites below information on mine safety regulations.

British Columbia: http://www.empr.gov.bc.ca/Mining/HealthandSafety/Pages/HSRC.aspx
Alberta: http://www.energy.gov.ab.ca/minerals/714.asp
Saskatchewan: http://www.er.gov.sk.ca/about
Manitoba: http://www.gov.mb.ca/stem/mrd/min-ed/minfacts/index.html
Ontario: http://www.mndm.gov.on.ca/miningact/miningact_e.asp
Quebec: http://www.gouv.qc.ca/portail/quebec/pgs/commun/portrait/economie/ressourcesnaturelles/quebecminier/?lang=en
New Brunswick: http://www.gnb.ca/0078/minerals/index-e.aspx
Nova Scotia: http://www.gov.ns.ca/NATR/MEB/
Prince Edward Island: http://www.gov.pe.ca/infopei/index.php3?number=39853&lang=E
Newfoundland: http://www.nr.gov.nl.ca/mines&en/mining/
Yukon Territories: http://www.emr.gov.yk.ca/mining/
Northwest Territories: http://www.iti.gov.nt.ca/miningoilgas/
Nunavut Territories: http://www.edt.gov.nu.ca/apps/authoring/dspPage.aspx?page=home

The North American Free Trade Agreement, which eliminates all tariffs on U.S. made mining equipment imported into Canada, has helped U.S. firms increase their dominant share of the import market. All mining equipment is subject to the Canadian Goods and Service Tax (GST) of 7%.

Trade Events

There are numerous upcoming mining trade shows throughout Canada, below is a sample of the biggest. Find more at: http://www.canadianminingjournal.com/events/Upcoming.asp?option=up

CIM Conference and Exhibition 2010
May 9-12, 2010 in Vancouver, Canada: www.cim.org

PDAC (Prospectors and Developers Association of Canada)
March 7-10, 2010 in Toronto, Canada: www.pdac.ca

RoundUp (The Association for Mineral Exploration BC)
January 18-21, 2010 in Vancouver, Canada: www.amebc.ca

Resources & Contacts

Canadian Association of Equipment Distributors (www.caed.org)

Canadian Association of Mining Equipment and Services for Export (www.camese.org)
Canadian Institute of Mining, Metallurgy and Petroleum (www.cim.org)
The Coal Association of Canada (www.coal.ca)
The Mining Association of Canada (www.mining.ca)
Industry Canada (http://strategis.ic.gc.ca)
Natural Resources Canada, Minerals and Metals Sector (www.nrCan.gc.ca)
Provincial and Territorial Mining-Related Acts and Regulations (http://www.nrcan.gc.ca/mms/busi-entre/ptar_e.htm)
WorkSafe BC (www.worksafebc.com)
Workers Compensation Board, Alberta (www.**wcb**.ab.ca/)

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